

**REMARKS / ARGUMENTS**

The Office Action mailed January 11, 2007 has been carefully considered.

Reconsideration in view of the following remarks is respectfully requested.

**Claim Status**

Claims 1-38 are now pending. No claims stand allowed.

Claims 12 and 25 have been amended to further particularly point out and distinctly claim subject matter regarded as the invention. Support for these changes may be found in the specification, pages 4-21 and FIGS. 1-10.

The text of claims 13-24 and 26-37 is unchanged, but their meaning is changed because they depend from amended claims.

New claims 39-41 have been added, which also particularly point out and distinctly claim subject matter regarded as the invention. Support for these claims may be found in the specification, pages 4-21 and FIGS. 1-10.

No “new matter” has been added by the Amendment.

With this Amendment it is respectfully submitted the claims satisfy the statutory requirements.

**The First 35 U.S.C. § 102 Rejection**

Claims 1-10, 12-21, 23-34, and 36-37 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Basara et al.,<sup>1</sup> among which claims 1, 12, and 25 are independent claims.<sup>2</sup> This rejection is respectfully traversed.

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<sup>1</sup> U.S. Patent No. 5,216,579 to Basara et al..

<sup>2</sup> Office Action dated January 11, 2007, ¶ 2.

Claim 1

Claim 1 recites:

An electronic device comprising:  
a first housing comprising a first face;  
a second housing comprising a second face;  
the second face indented from the first face;  
a plurality of electronic components housed in the first housing;  
one or more power supplies housed in the second housing; and  
the electronic components operable to be powered by a cord to the one or more of  
the plurality of power supplies, the cord running from the indented second face  
to the first face.

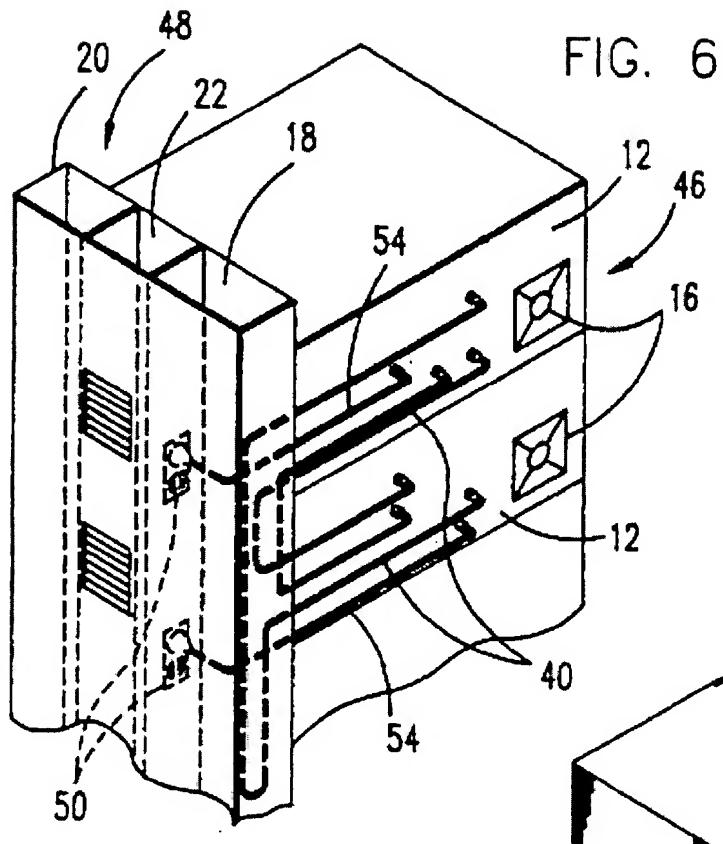
The Examiner states:

... Basara teaches a first housing comprising a first face (face of module 12); a second housing (22) comprising a second face (face of a power supply contained within power plenum 22); the second face indented from the first face (Fig. 6, clearly teaching a face of a power supply in 22 would be indented from a face of a module 12); a plurality of electronic components housed in the first housing (col 5, 7-11); one or more power supplies housed in the second housing (col 5, 66-2); and the electronic components operable to be powered by a cord (54) to the one or more of the plurality of power supplies, the cord running from the indented second face to the first face (see Fig. 6, col 6, 50-59, note that for all the claims the "operable to" language is functional and does not positively claim a structural relationship, see MPEP 2114).<sup>3</sup>

The Applicants respectfully disagree. Contrary to the Examiner's statement, Basara et al. does not disclose the second face indented from the first face as required by Claim 1. In support of the Examiner's contention, the Examiner refers to FIG. 6 of Basara et al., which is repeated below for the Examiner's convenience.

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<sup>3</sup> Office Action at ¶ 2.



The Examiner equates the second face of claim 1 with “face of a power supply contained within power plenum 22.” However, Basara et al. does not disclose a power supply contained within power plenum 22 as proposed by the Examiner. Basara et al. recites:

Rearwardly positioned from cooling plenum 20 is illustrated a power distribution plenum 22. The power distribution plenum 22 provides a vertical chase through which utility power may be transmitted and distributed to power outlets 28. The positioning of power outlets 28 in close proximity to the back panel 17 of modules 12 is desirable so that exposed extended runs of power cabling are not required. It should be understood also that in the event a stand-alone power supply is utilized within the rack system to power other modules with a non-utility power, the utility power for the power supply may be supplied through a portion of the plenum 22 while the output of the power supply would then re-enter or be connected to power distribution equipment within the plenum and be distributed to the other electronic modules as needed through power outlet connections in plenum 22.<sup>4</sup>

Thus, the power distribution plenum 22 of FIG. 6 says nothing about a power supply in power

<sup>4</sup> Basara et al., at col. 5 l. 54 to col. 6 l. 2.

distribution plenum 22. Rather, as shown in the portion of Basera et al. recited below, Basera et al. discloses power supplies are one type of electronic modules 12, which the Examiner equates with the first housing of claim 1:

With reference to FIG. 1, an EIA standard 19 inch frame 10 is shown with four electronic modules inserted into and mounted on the frame 10. Electronic modules 12, for example, may be central processing units, power supplies, DASD units, communication units or other similar type units which are combined to yield an overall computer system assembly.<sup>5</sup>

Therefore, Basera et al. cannot be said to disclose a face of a power supply contained within power plenum 22. For this reason, the 35 U.S.C. § 102 Rejection of Claim 1 is unsupported by the art of record. Accordingly, the Examiner has not established a *prima facie* case and the rejection must be withdrawn.

### Claim 12

Claim 12 as presently amended recites:

An enclosure for an electronic system comprising:  
 a first chassis, operable to enclose a plurality of electronic components,  
 comprising:  
 a first face;  
 a second face opposite the first face;  
 a third face, wherein the plane of the third face is perpendicular to the planes of  
 the first face and the second face;  
 a second chassis operable to enclose one or more power supplies, the second  
 chassis having a fourth face indented from the first face; and  
 one or more cords running from the first fact to the fourth face, the one or more  
 cords operable to supply power from the one or more power supplies to at  
 least one of the plurality of electronic components.

The Examiner states:

... Basara teaches a first chassis (12), operable to enclose a plurality of electronic components (col 5, 7-11), comprising: a first face; a second face opposite the first

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<sup>5</sup> Basera et al. at col. 5 ll. 5-11.

face; a third face, wherein the plane of the third face is perpendicular to the planes of the first face and the second face (the module is shown substantially as a rectangular prism, therefore two opposite faces would be perpendicular to a third); electrical connections, for transferring electrical energy to any enclosed electronic components, disposed through the first face (see Fig. 6, connection for cord 54); a second chassis (22), operable to enclose one or more power supplies, having a fourth face; and wherein a portion of the fourth face is disposed in a plane that intersects the third face (see Fig. 6).<sup>6</sup>

The Applicants respectfully disagree. Again, contrary to the Examiner's statement, Basara et al. does not disclose power plenum 22 is operable to enclose one or more power supplies as required by Claim 12. Additionally, with this Amendment, Claim 12 has been amended to recite in part:

a second chassis operable to enclose one or more power supplies, the second chassis having a fourth face indented from the first face; and one or more cords running from the first fact to the fourth face, the one or more cords operable to supply power from the one or more power supplies to at least one of the plurality of electronic components.

All the elements of Claim 12 are not disclosed by the art of record. Accordingly, the Applicants respectfully request the 35 U.S.C. § 102 rejection of Claim 12 based on Basara et al. be withdrawn.

### Claim 25

Claim 25 as presently amended recites:

An enclosure for an electronic system comprising:  
 a first chassis operable to enclose a plurality of electronic components, the first chassis comprising a first face and a second face opposite the first face;  
 a second chassis operable to enclose one or more power supplies, comprising a third face;  
 one or more cords running from the first fact to the third face, the one or more cords operable to supply power from the one or more power supplies to at least one of the plurality of electronic components; and  
 wherein the third face and the first face define an indentation, and the second chassis is indented from the first chassis.

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<sup>6</sup> Office Action at ¶ 3.

The Examiner states:

... Basara teaches a first chassis (12) operable to enclose a plurality of electronic components (col 5, 7-11), the first chassis comprising a first face and a second face opposite the first face; electrical connections (see Fig. 6, connection for cord 54), for transferring electrical energy to any enclosed electronic components, disposed through the first face; a second chassis (22) operable to enclose one or more power supplies (col 6, 50-59), comprising a third face; and wherein the third face and the first face define an indentation, and the second chassis is indented from the first chassis.<sup>7</sup>

The Applicants respectfully disagree. Again, contrary to the Examiner's statement, Basara et al. does not disclose power plenum 22 is operable to enclose one or more power supplies as required by Claim 25. Additionally, with this Amendment, Claim 25 has been amended to recite in part:

one or more cords running from the first fact to the third face, the one or more cords operable to supply power from the one or more power supplies to at least one of the plurality of electronic components;

All the elements of Claim 25 are not disclosed by the art of record. Accordingly, the Applicants respectfully request the 35 U.S.C. § 102 rejection of Claim 25 based on Basara et al. be withdrawn.

#### Dependent Claims 2-10, 13-21, 23-24, 26-34, and 36-37

Claims 2-10 depend from Claim 1. Claims 13-21 and 23-24 depend from Claim 12.

Claims 26-34 and 36-37 depend from Claim 25. The base claims being allowable, the dependent claims must also be allowable for at least the same reasons.

#### Claim 2

Claim 2 recites:

The device of claim 1 wherein the second face is higher than the first face.

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<sup>7</sup> Office Action at ¶ 4.

The Examiner states:

... Basara teaches wherein the second face or chassis is higher than the first face or chassis (the power supply in the top portion of plenum 22 is higher than the module 12 at the bottom side of the assembly 46).<sup>8</sup>

The Applicants respectfully disagree. Again, contrary to the Examiner's statement, Basara et al. does not disclose a power supply in any portion of power plenum 22, such as the top portion of power plenum 22. For this additional reason, the 35 U.S.C. § 102 Rejection of Claim 2 is unsupported by the art of record. Accordingly, the Examiner has not established a *prima facie* case and the rejection must be withdrawn.

### Claims 13 and 26

Claims 13 and 26 include limitations similar to Claim 2. Claim 2 being allowable, Claims 13 and 26 must also be allowable for at least the same reasons.

### Claim 3

Claim 3 recites:

The device of claim 1 wherein the second face is lower than the first face.

The Examiner states:

... Basara teaches wherein the second face or chassis is lower than the first face or chassis (the power supply in the bottom portion of plenum 22 is lower than the module 12 at the top side of the assembly 46).<sup>9</sup>

The Applicants respectfully disagree. Again, contrary to the Examiner's statement, Basara et al. does not disclose a power supply in any portion of power plenum 22, such as the bottom portion

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<sup>8</sup> Office Action at ¶ 5.

<sup>9</sup> Office Action at ¶ 6.

of power plenum 22. For this additional reason, the 35 U.S.C. § 102 Rejection of Claim 3 is unsupported by the art of record. Accordingly, the Examiner has not established a *prima facie* case and the rejection must be withdrawn.

### Claims 14 and 27

Claims 14 and 27 include limitations similar to Claim 3. Claim 3 being allowable, Claims 14 and 27 must also be allowable for at least the same reasons.

### Claim 5

Claim 5 recites:

The device of claim 4 wherein at least two of the power supplies are disposed in separate sub-housings of the second housing, separated by a structure disposed within the second housing.

The Examiner states:

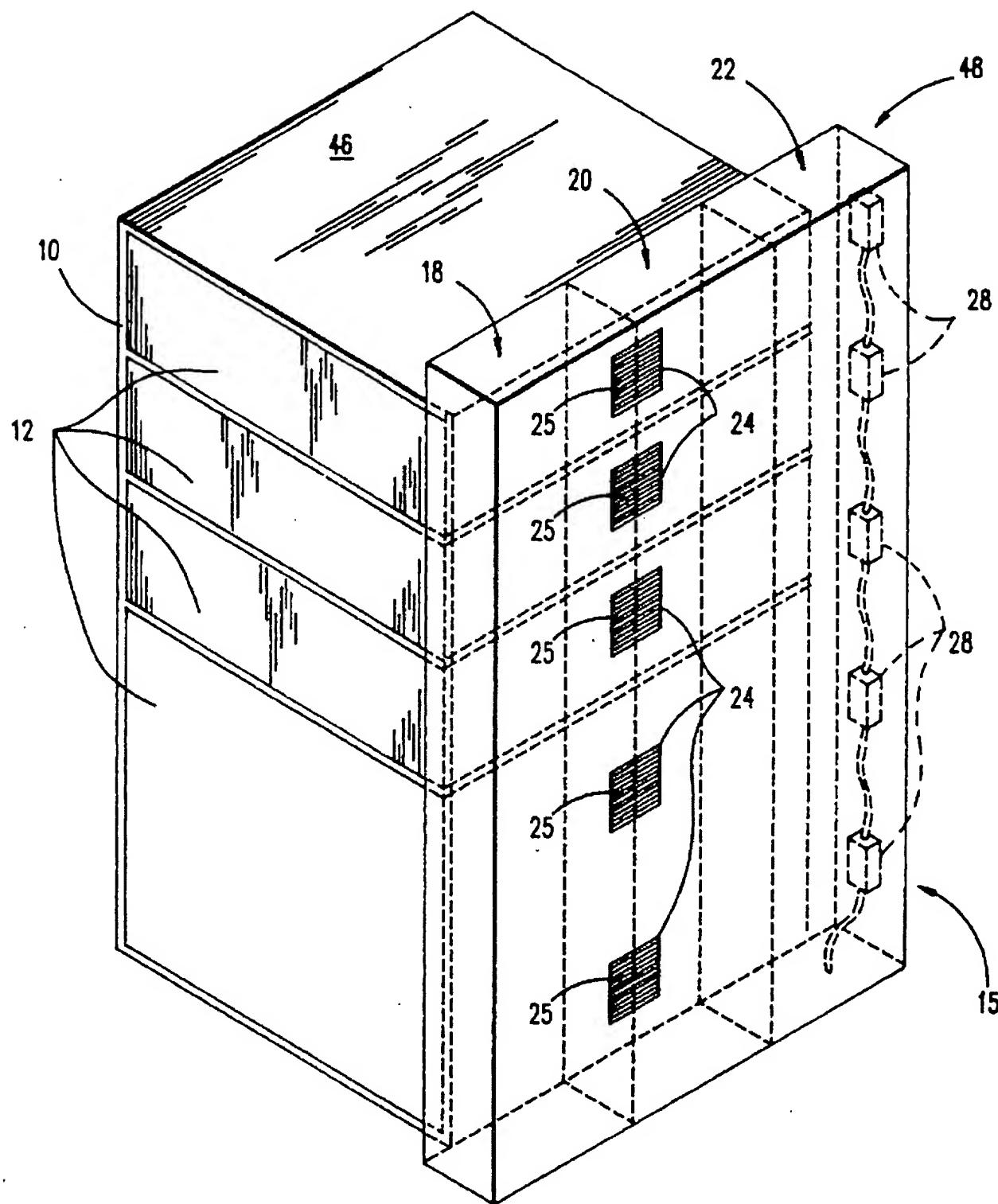
... Basara teaches wherein at least two of the power supplies are disposed and operable to be disposed in separate sub-housings of the second housing or chassis, separated by a structure disposed within the second housing or chassis (Fig 1 clearly teaches separate power supplies 28 each having its own housing and being separate from each other).<sup>10</sup>

The Applicants respectfully disagree. Contrary to the Examiner's statement, Basara et al. does not disclose wherein at least two of the power supplies are disposed in separate sub-housings of the second housing, separated by a structure disposed within the second housing as required by Claim 5. In support of the Examiner's contention, the Examiner refers to FIG. 1 of Basara et al., which is included below for the Examiner's convenience.

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<sup>10</sup> Office Action at ¶ 8.

FIG. 1



The Applicants respectfully submit the Examiner's attempt to equate power *outlet* 28 with the power supplies of Claim 5 is improper. For this additional reason, the 35 U.S.C. § 102 Rejection

of Claim 5 is unsupported by the art of record. Accordingly, the Examiner has not established a *prima facie* case and the rejection must be withdrawn.

### Claims 16 and 29

Claims 16 and 29 include limitations similar to Claim 5. Claim 5 being allowable, Claims 16 and 29 must also be allowable for at least the same reasons.

### The Second 35 U.S.C. § 102 Rejection

Claim 38 stands rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Guyer et al.<sup>11 12</sup>

Claim 38 recites:

An enclosure for an electronic system comprising:  
means for enclosing a plurality of electronic components, defined by a first face  
and a second face opposite the first face;  
means for making electrical connections disposed through the first face;  
means for enclosing one or more power supplies, defined at least in part by a third  
face; and  
wherein the third face and the first face define an indentation.

The Examiner states:

Guyer teaches an enclosure for an electronic system comprising: means for enclosing a plurality of electronic components (29), defined by a first face (rear face of 29, see Fig. 4) and a second face (front face of 29) opposite the first face; means for making electrical connections disposed through the first face (61, col 16, 27–30); means for enclosing one or more power supplies (59), defined at least in part by a third face (rear face of 59); and wherein the third face and the first face define an indentation (see Fig. 4).<sup>13</sup>

Claim 38 is a means-plus-function claim. U.S. Patent and Trademark Office Guidelines require that if a prior art reference teaches identity of function to that specified in the claim, the examiner

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<sup>11</sup> U.S. Patent No. 6,583,989 to Guyer et al.

<sup>12</sup> Office Action at ¶ 15.

<sup>13</sup> Office Action at ¶ 15.

carries the initial burden of proof for showing the prior art structure or step is the same or equivalent to the structure, material, or acts described in the specification which has been identified as corresponding to the claimed means or step plus function.<sup>14</sup> A copy of the Guidelines is included as an appendix to this Amendment. As the Examiner has not shown the prior art structure is the same or equivalent to the structure described in the specification which has been identified as corresponding to the claimed means or step plus function, the Examiner has not met his initial burden. Thus, a *prima facie* case has not been established and the withdrawal of the rejection of Claim 38 under 35 U.S.C. § 102(e) based on Guyer et al. must be withdrawn.

### The Third 35 U.S.C. § 102 Rejection

Claim 38 stands rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Basara et al.<sup>15</sup>

The Examiner states:

Basara teaches a means for enclosing a plurality of electronic components (12), defined by a first face and a second face opposite the first face (the module is shown substantially as a rectangular prism, therefore two opposite faces would be perpendicular to a third); means for making electrical connections disposed through the first face (see Fig. 6, connection for cord 54); means for enclosing one or more power supplies (22), defined at least in part by a third face; and wherein the third face and the first face define an indentation (see Fig. 6).<sup>16</sup>

The argument made above with respect to the rejection of Claim 38 under 35 U.S.C. § 102(e) based on Guyer et al. applies here as well. As the Examiner has not shown the prior art structure is the same or equivalent to the structure described in the specification which has been identified

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<sup>14</sup> Examination Guidelines for Claims Reciting a “Means or Step Plus Function Limitation,” U.S. Patent and Trademark Office, p. 3, § II.A

<sup>15</sup> Office Action at ¶ 16.

<sup>16</sup> Office Action at ¶ 16.

as corresponding to the claimed means or step plus function, the Examiner has not met his initial burden.

Additionally, contrary to the Examiner's statement, Basara et al. does not disclose power plenum 22 as a means for enclosing one or more power supplies as required by Claim 38. For this additional reason, the 35 U.S.C. § 102 Rejection of Claim 38 is unsupported by the art of record. Accordingly, the Examiner has not established a *prima facie* case and the rejection must be withdrawn.

#### The 35 U.S.C. § 103(a) Rejection

Claims 11, 22, and 35 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Basara et al.<sup>17</sup> This rejection is respectfully traversed.

Claim 11 recites:

The device of claim 1 wherein the first face is not parallel to the second face.

The Examiner states:

Basara teaches the device as applied to claim 1, 12, and 25 respectively, but lacks specific teaching of unparallel faces as claimed. A change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Basara recognizes ascetic appeal as a consideration in col 6, lines 18-23. The Applicant's specification does not indicate any unexpected result from unparallel faces. It would have been obvious to a person of ordinary skill in the art to change the shape of the structures of Basara to include oblique or curved faces known in the art for the benefit of a more visually pleasing appearance.<sup>18</sup>

Claims 11, 22, and 35 depend from Claims 1, 12, and 25, respectively. The arguments

<sup>17</sup> Office Action at ¶ 17.

<sup>18</sup> Office Action at ¶ 17.

made above with respect to the 35 U.S.C. § 102 rejection of Claims 1, 12, and 25 apply here as well. The 35 U.S.C. § 102 rejection of Claims 1, 12, and 25 based on Basara et al. is unsupported by the art of record, as each and every element as set forth in Claims 1, 12, and 25 is not found in Basara et al. Since Basara et al., the primary reference, fails to disclose all of the elements of the independent claims, as discussed above, any combination of Basara et al. and other secondary references does not teach or suggest the claimed invention. Therefore, the 35 U.S.C. § 103 rejection of dependent claims 11, 22, and 35 based on Basara et al. and what is allegedly commonly known in the art, is also unsupported by the art of record.

Additionally, the Office Action admits that Basara et al. does not teach wherein the first face is not parallel to the second face but does not provide a specific reference where such a limitation is found, instead arguing that one of ordinary skill in the art would have found it obvious to modify the invention in Basara et al. to arrive at the additional claim limitation. Therefore, applicant assumes that the Office Action intended to take official notice of facts under M.P.E.P. § 2144.03 that the rationale supporting the obviousness rejection is based on common knowledge in the art or "well-known" prior art. According to the M.P.E.P.,

If the applicant traverses such an assertion the examiner should cite a reference in support of his or her position.<sup>19</sup>

The Applicants hereby traverse the assertion and request that a reference be cited in support of the position outlined in the Office Action.

### Claims 22 and 35

Claims 22 and 35 include limitations similar to Claim 11. Claim 11 being allowable,

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<sup>19</sup> M.P.E.P. § 2144.03.

Claims 22 and 35 must also be allowable for at least the same reasons.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

Conclusion

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

The Applicants respectfully request that a timely Notice of Allowance be issued in this case. Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

Respectfully submitted,

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Dated: May 11, 2007

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Examination Guidelines For Claims  
Reciting A "Means or Step Plus Function" Limitation  
In Accordance With 35 U.S.C § 112, 6th Paragraph

The purpose of this memo is to set forth guidelines for the examination of § 112, 6th paragraph "means or step plus function" limitations in a claim. The court of Appeals for the Federal Circuit, in its en banc decision In re Donaldson 29 USPQ 2d 1845 (Fed. Cir. 1994), decided that a "means-or-step-plus-function" limitation should be interpreted in a manner different than patent examining practice has dictated for at least the last forty-two years. The Donaldson decision affects only the manner in which the scope of a "means or step plus function" limitation in accordance with § 112, 6th paragraph, is interpreted during examination. Donaldson does not directly affect the manner in which any other section of the patent statutes is interpreted or applied.

When making a determination of patentability under 35 U.S.C. §§ 102 or 103, past practice was to interpret a "means or step plus function" limitation by giving it the "broadest reasonable interpretation." Under the PTO's long-standing practice this meant interpreting such a limitation as reading on any prior art means or step which performed the function specified in the claim without regard for whether the prior art means or step was equivalent to the corresponding structure, material or acts described in the specification. However, in Donaldson the Federal Circuit stated that:

Per our holding, the "broadest reasonable interpretation" that an examiner may give means-plus-function language is that statutorily mandated in paragraph six. Accordingly, the PTO may not disregard the structure disclosed in the specification corresponding to such language when rendering a Patentability determination.<sup>1</sup>

Thus, effective immediately, examiner shall interpret a § 112, 6th paragraph "means or step plus function" limitation in a claim as limited to the corresponding structure, materials or acts described in the specification and equivalents thereof in acts accordance with the following guidelines.

**I. Identifying a § 112, 6th paragraph limitation**

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<sup>1</sup>In re Donaldson, 29 USPQ2d 1845, 1850 (Fed. Cir. 1994).

Although there is no magic language that must appear in a claim in order for it to fall within the scope of § 112, 6th paragraph, it must be clear that the element in the claim is set forth, at least in part, by the function it performs as opposed to the specific structure, material, or acts that perform the function. Limitations that fall within the scope of § 112, 6th paragraph include:

- (1) a jet driving device so constructed and located on the rotor as to drive the rotor . . . <sup>2</sup> ["means" unnecessary]
- (2) "printing means" and "means for printing" would have the same connotations <sup>3</sup>
- (3) force generating means adapted to provide . . . <sup>4</sup>
- (4) call cost register means, including a digital display for providing a substantially instantaneous display for . . . <sup>5</sup>
- (5) reducing the coefficient of friction of the resulting film<sup>6</sup> [step plus function; "step" unnecessary], and
- (6) raising the Ph of the resultant pulp to about 5.0 to precipitate . . . <sup>7</sup>

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<sup>2</sup>The term "device" coupled with a function is a proper definition of structure in accordance with the last paragraph of § 112. The addition of the words "jet driving" to the term "device" merely renders the latter more definite and specific. Ex parte Stanley, 121 USPQ 621 (Bd. APP. 1958).

<sup>3</sup>Ex parte Klum, 159 USPQ 694 (Bd. App. 1967). However, the terms "plate" and "wing", as modifiers of the structureless term "means," specify no function to be performed, and do not fall under the last paragraph of § 112.

<sup>4</sup>De Graffenreid v. U.S., 20 Ct. Cl. 458, 16 USPQ2d 1321 (Ct. Cl. 1990)

<sup>5</sup>Intellicall Inc. v. Phonometrics Inc., 952 F.2d 1384, 21 USPQ2d 1383 (Fed. Cir. 1992).

<sup>6</sup>In re Roberts, 470 F.2d 1399, 176 USPQ 313 (CCPA 1973).

<sup>7</sup>Ex parte Zimmerley, 153 USPQ 367 (Bd. App. 1966)

In the event that it is unclear whether the claim limitation falls within the scope of §112, 6th paragraph, a rejection under §112, 2d paragraph may be appropriate.

Donaldson does not affect the holding of In re Hyatt, 708 F.2d 712, 218 USPQ 195 (Fed. Cir. 1983) to the effect that a single means claim does not comply with the enablement requirement of § 112, first paragraph. As Donaldson applies only to an interpretation of a limitation drafted to correspond to § 112, 6th paragraph, which by its terms is limited to "an element in a claim to a combination," it does not affect a limitation in a claim is not directed to a combination.

## II. Examining Procedure

### A. Scope of the Search and Identification of the Prior Art

As noted above, in Donaldson the Federal Circuit recognized that it is important to retain the principle that claim language should be given its broadest reasonable interpretation. This principle is important because it helps insure that the statutory presumption of validity attributed to each claim of an issued patent is warranted by the search and examination conducted by the examiner. It is also important from the standpoint that the scope of protection afforded by patents issued prior to Donaldson are not unnecessarily limited by the latest interpretation of this statutory provision. Finally, it is important from the standpoint of avoiding the necessity for a patent specification to become a catalogue of existing technology. 8

The Donaldson decision thus does not substantially alter examining practice and procedure relative to the scope of the search. Both before and after Donaldson, the application of a prior art reference to a means or step plus function limitation requires that the prior art element perform the identical function specified in the claim. However, if a prior art reference teaches identity of function to that specified in a claim, then under Donaldson an examiner carries the initial burden of proof for showing that the prior art structure or step is the same as or equivalent to the structure, material, or acts described in the specification which has been identified as corresponding to the claimed means or step plus function.

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<sup>8</sup>A patent specification need not teach, and preferably omits, what is well known in the art. Hybritech Inc. v. Monoclonal Antibodies. Inc., 802 F.2d 1367, 1384, 231 USPQ 81, 94 (Fed. Cir. 1986).

The "means or step plus function" limitation should be interpreted in a manner consistent with the specification disclosure. If the specification defines what is meant by the limitation for the purposes of the claimed invention, the examiner should interpret the limitation as having the meaning. If no definition is provided, some judgment must be exercised in determining the scope of the limitation.

B. Making a prima facie case of equivalence

If the examiner finds that a prior art element performs the function specified in the claim, and is not excluded by any explicit definition provided in the specification for an equivalent, the examiner should infer from that finding that the prior art element is an equivalent, and should then conclude that the claimed limitation is anticipated by the prior art element. The burden then shifts to applicant<sup>9</sup> to show that the element shown in the prior art is not an equivalent of the structure, material or acts disclosed in the application. In re Mulder, 716 F.2d 1542, 219 USPQ 189 (Fed. Cir. 1983).<sup>10</sup> The factors to be

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<sup>9</sup>No further analysis of equivalents is required of the examiner until applicant disagrees with the examiner's conclusion, and provides reasons why the prior art element should not be considered an equivalent.

<sup>10</sup>See also, In re Walter, 618 F.2d at 768, 205 USPQ at 407-08, (a case treating § 112, 6th paragraph, in the context of a determination of statutory subject matter and noting "If the functionally-defined disclosed means and their equivalents are so broad that they encompass any and every means for performing the recited functions . . . the burden must be placed on the applicant to demonstrate that the claims are truly drawn to specific apparatus distinct from other apparatus capable of performing the identical functions"); In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 229 (C.C.P.A. 1971) (a case in which the CCPA treated as improper a rejection under § 112, 2d paragraph, of functional language, but noted that "where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristics relied on"); and In re Fitzgerald 619 F.2d 67, 205 USPQ 594 (CCPA 1980) (a case indicating that the burden of proof can be shifted to the applicant to show that the subject matter of the prior art does not possess the characteristic relied on whether the rejection is based on inherency under § 102 or obviousness under § 103).

considered when determining whether the applicant has successfully met the burden of proving that the prior art element is not equivalent to the structure, material or acts described in the applicant's specification are discussed below.

However, even where the applicant has met that burden of proof and has shown that the prior art element is not equivalent to the structure, material or acts described in the applicant's specification, the examiner must still make a §103 analysis to determine if the claimed means or step plus function is obvious from the prior art to one of ordinary skill in the art. Thus, while a finding of non equivalence prevents a prior art element from anticipating a means or step plus function limitation in a claim, it does not prevent the prior art element from rendering the claim limitation obvious to one of ordinary skill in the art.

Because the exact scope of an "equivalent" may be uncertain, it would be appropriate to apply a §102/§103 rejection where the balance of the claim limitations are anticipated by the prior art relied on.<sup>11</sup> In addition, although it is normally the best practice to rely on only the best prior art references in rejecting a claim, alternative grounds of rejection may be appropriate where the prior art shows elements that are different from each other, and different from the specific structure, material or acts described in the specification, yet perform the function specified in the claim.

C. Determining whether an applicant has met the burden of providing non-equivalence after a *prima facie* case is made

If the applicant disagrees with the inference of equivalence drawn from a prior art reference, the applicant may provide reasons why the applicant believes the prior art element should not be considered an equivalent to the specific structure, material or acts disclosed in the specification. Such reasons may include, but are not limited to: 1) teachings in the specification that particular prior art is not equivalent, 2) teaching in the prior art reference itself that may tend to show non-equivalence, or 3) Rule 132 affidavit evidence of facts tending to show non-equivalence.

When the applicant relies on teachings in applicant's own specification, the examiner must make sure that the applicant is interpreting the "means or step plus function" limitation in the

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<sup>11</sup>A similar approach is authorized in the case of product-by--process claim because the exact identity of the claimed product or the prior art product cannot be determined by the examiner. In re Brown, 450 F.2d 531, 173 USPQ 685 (CCPA 1972).

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claim in a manner which is consistent with the disclosure in the specification. If the specification defines what is meant by "equivalents" to the disclosed embodiments for the purpose of the claimed means or step plus function, the examiner should interpret the limitation as having that meaning. If no definition is provided, some judgment must be exercised in determining the scope of "equivalents." Generally, an "equivalent" is interpreted as embracing more than the specific elements described in the specification for performing the specified function,<sup>12</sup> but less than any element that performs the function specified in the claim.

The scope of equivalents embraced by a claim limitation is dependent on the interpretation of an "equivalent". The interpretation will vary depending on how the element is described in the supporting specification. The claim may or may not be limited to particular structure, material or acts (e.g. steps) as opposed to any and all structure, material or acts performing the claimed function, depending on how the specification treats that question.

If the disclosure is so broad as to encompass any and all structure, material or acts for performing the claimed function, the claims must be read accordingly when determining patentability. When this happens the limitation otherwise provided by "equivalents" ceases to be a limitation on the scope of the claim in that an equivalent would be any structure, material or act other than the ones described in the specification that perform the claimed function. For example, this situation will often be found in cases where (1) the claimed invention is a combination of elements, one or more of which are selected from elements that are old per se, or (2) apparatus claims are treated as indistinguishable from method claims.<sup>13</sup>

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<sup>12</sup>To interpret "means plus function" limitations as limited to a particular means set forth in the specification would nullify the provisions of § 112 requiring that the limitation shall be construed to cover the structure described in the specification and equivalents thereof. D.M.I., Inc. v. Deere & Co., 755 F.2d 1570, 1574, 225 USPQ 236, 238 (Fed. Cir. 1985).

<sup>13</sup>See, for example, In re Meyer, 688 F.2d 789, 215 USPQ 193 (1982); In re Abele, 618 F.2d at 768, 205 USPQ at 401-08; In re Walter, 618 F.2d 758, 767, 205 USPQ 397, 406-07 (C.C.P.A. 1980); In re Maucorps, 609 F.2d 481, 203 USPQ 812 (C.C.P.A. 1979); In re Johnson, 589 F.2d, 1070, 200 USPQ 199 (C.C.P.A. 1978); and In re Freeman, 573 F.2d at 1246, 197 USPQ at 471.

On the other end of the spectrum, the "equivalents" limitation as applied to a claim may also operate to constrict the claim scope to the point of covering virtually only the disclosed embodiments. This can happen in circumstances where the specification describes the invention only in the context of a specific structure, material or act that is used to perform the function specified in the claim.

When deciding whether an applicant has met the burden of proof with respect to showing non-equivalence of a prior art element that performs the claimed function, the following factors may be considered. First, unless an element performs the identical function specified in the claim, it cannot be a equivalent for the purpose of §112, 6th paragraph. <sup>14</sup>

Second, while there is no litmus test for an "equivalent" that can be applied with absolute certainty and predictability, there are several indicia that are sufficient to support a conclusion that one element is or is not an "equivalent" of a different element in the context of § 112, 6th paragraph. Among the indicia that will support a conclusion that one element is or is not an equivalent of another are:

- 1) Whether the prior art element performs the function specified in the claim in substantially the same results as the corresponding element disclosed in the specification. <sup>15</sup>
- 2) Whether a person of ordinary skill in the art would have recognized the interchangeability of the element shown in the prior art for the corresponding element disclosed in the specification. <sup>16</sup>

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<sup>14</sup> Pennwalt Corp. v. Durand-Wayland Inc . 833 F.2d 931, 4 USPQ2d 1737 (Fed. Cir. 1987), cert. denied, 484 U.S. 961 (1988).

<sup>15</sup> Lockheed Aircraft Corporation v. United States , 193 USPQ 449, 461 (Ct. Cl. 1977). Graver Tank concepts of equivalents are relevant to any "equivalents" determination. Polumbo v. Don-Joy Co., 762 F.2d 696, 975, n. 4, 226 USPQ 5, 8-9, n. 4 (Fed. Cir. 1985) .

<sup>16</sup> Lockheed Aircraft Corporation v. United States , 193 USPQ 449, 461 (Ct. Cl. 1977). Data Line Corp. v. Micro Technologies. Inc ., 813 F.2d 1196, 1 USPQ2d 2052 (Fed. Cir. 1987).

- 3) Whether the prior art element is a structural equivalent of the corresponding element disclosed in the specification being examined.<sup>17</sup> That is, the prior art element performs the function specified in the claim in substantially the same manner as the function is performed by the corresponding element described in the specification.
- 4) Whether the structure, material or acts disclosed in the specification represents an insubstantial change which adds nothing of significance to the prior art element. <sup>18</sup>

These examples are not intended to be an exhaustive list of the indicia that would support a finding that one element is or is not an equivalent of another element for the purposes of § 112, 6th paragraph. A finding according to any of the above examples would represent a sufficient, but not the only possible, basis to support a conclusion that an element is or is not an equivalent. There could be other indicia that also would support the conclusion.

In determining whether arguments or Rule 132 evidence presented by an applicant are persuasive that the element shown in the prior art is not an equivalent, the examiner should consider and weigh as many of the above-indicated or other indicia as are presented by applicant, and should determine whether, on balance, the applicant has met the burden of proof to show non-equivalence. However, under no circumstance should an examiner accept as persuasive a bare statement or opinion that the element shown in the prior art is not an equivalent embraced by the claim limitation. Moreover, if an applicant argues that the "means" or "step" plus function language in a claim is limited to certain specific structural or additional functional characteristics (as opposed to "equivalents" thereof) where the specification does not describe the invention as being only those specific characteristics, the claim should not be allowed until the claim is amended to recite those specific structural or additional functional characteristics. <sup>19</sup>

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<sup>17</sup> In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

<sup>18</sup> Valmont Industries Inc. v. Reinke Manufacturing Co. Inc., 983 F.2d 1039, 25 USPQ2d 1451 (Fed. Cir. 1993).

<sup>19</sup> Otherwise, a claim could be allowed having broad functional language which in reality is limited to only the specific structure or steps disclosed in the specification. This would be

Finally, as in the past, applicant has the opportunity during proceedings before the Office to amend the claims so that the claimed invention meets all the statutory criteria for patentability. An applicant may choose to amend the claim by further limiting the function so that there is no longer identity of function with that taught by the prior art element, or the applicant may choose to replace the claimed means plus function limitation with specific structure material or acts that are not described in the prior art.

D. Related issues under Section 112 first or second paragraphs

The Donaldson decision may create some uncertainty as to what applicant regards as the invention. If this issue arises, it should be addressed in a rejection under §112, 2d paragraph. While § 112, 6th paragraph permits a particular form of claim limitation, it can not be read as creating an exception either to the description, enablement or best mode requirements of the 1st paragraph or the definiteness requirement of the 2d paragraph of § 112. In re Knowlton, 481 F.2d 1357, 178 USPQ 486 (CCPA 1973). If a "means or step plus function" limitation recited in a claim is not supported by corresponding structure, material or-acts in the specification disclosure, the following rejections should be considered: (1) under § 112, 1st paragraph, as not being supported by an enabling disclosure because the person skilled in the art would not know how to make and use the invention without a description of elements to perform the function; <sup>20</sup> (2) under § 112, 2d paragraph, as being indefinite because the element or step is not defined in the specification by corresponding structure, material or acts; (3) under §§ 102 or 103 where the prior art anticipates or renders obvious the claimed subject matter including the means or step that performs the function specified in the claim. (Theory: since there is no corresponding structure, etc. in the specification to limit the means or step plus function limitation, an equivalent is any element that performs the specified function).

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contrary to public policy of granting patents which provide adequate notice to the public as to a claim's true scope.

<sup>20</sup>The description of an apparatus with block diagrams describing the function, but not the structure, of the apparatus is not fatal under the enablement requirement of § 112, 1st paragraph, as long as the structure is conventional and can be determined without an undue amount of experimentation. In re Ghiron, 442 F. 2d 985, 991, 169 USPQ 723, 727 (CCPA 1971)

### III. Avoid confusion with the doctrine of equivalents

An "equivalent" for the purposes of § 112, 6th paragraph, should not be confused with the doctrine of equivalents. The doctrine of equivalents, most often associated with Graver Tank & Mfg. Co. v. Linde Air Products 339 U.S. 605, 85 USPQ 328 (1950), is sometimes applied to do equity among the parties before the court in an infringement action involving an issued patent. The doctrine typically involves a three-part inquiry - whether an accused device performs substantially the same function, in substantially the same way, to obtain substantially the same result as the claimed invention.

Section § 112, 6th paragraph limits the scope of the broad language of "means or step plus function" limitations, in a claim to a combination, to the structures, materials and acts described in the specification and equivalents thereof. The doctrine of equivalents equitable expands exclusive patent rights beyond the literal scope of a claim.<sup>21</sup> Accordingly, decisions involving the doctrine of equivalents should not unduly influence a determination under § 112, 6th paragraph during ex parte examination.

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<sup>21</sup>Valmont Industries Inc., Reinke Manufacturing Co., Ind., 983 F.2d 1039, 1043, 1044, 25 USPQ2d 1451, 1455 (Fed. Cir. 1993).